WHAT IS CLAIMED:

1. A lens for collecting light from a light source having plural sides, wherein the light source emits divergent light, comprising;

at least one lens having a compound shape including curved surfaces that are distributed around of the light source, wherein the curved surfaces may have an offset spherical or an offset aspheric shape.

2. The lens of claim 1, wherein the lens includes a flat top portion separating the curved surfaces.

3. The lens of claim 1, wherein the spherical surfaces are equidistance from a center line extending through the light source.

4. The lens of claim 1, wherein the lens is symmetric about a center line extending through the light source.

5. The lens of claim 1, wherein the lens includes sections that collect light from respective portions of the light source.

6. The lens of claim 5, wherein each curved section of the lens includes geometry that is optimized for each portion of the light source from which that section of the lens collects light.

7. The lens of claim 1, wherein the lens includes an offset aspheric shape.

8. The lens of claim 7, wherein the lens includes a faceted surface that approximates the aspheric shape.

9. The lens of claim 8, wherein the faceted surfaces have a symmetrically circular shape.

10. The lens of claim 8, wherein the faceted surfaces have a square tile pattern.

11. The lens of claim 10, wherein the square tile pattern fully fills a surface of the lens.

12. The lens of claim 10, wherein the square tile pattern is formed from micro-pyramids.

13. The lens of claim 1, wherein the lens is an array of lenses.

14. An LED module that emits light from plural sides, comprising;

at least one lens having a compound shape including curved surfaces that are distributed around the light source, wherein the curved surfaces may have an offset spherical or an offset aspherical shape.

15. The LED module of claim 14, wherein the module comprises an array of LEDs.

16. The LED module of claim 15, wherein each LED is associated with a lens having a compound shape including curved surfaces that are centered about each side of the LED.

17. The LED module of claim 16, wherein the lens comprises an array of lens with each LED having an associated lens.

18. The LED module of claim 14, wherein the lens includes a flat top portion separating the curved surfaces.

19. The LED module of claim 14, wherein the spherical surfaces are equidistance from a center line extending through the light source.

20. The LED module of claim 18, wherein the lens is symmetric about a center line extending through the light source.

21. The LED module of claim 14, wherein the lens includes sections that collect light from respective portions of the light source.

22 The LED module of claim 14, wherein each section of the lens includes geometry that is optimized for each portion of the light source from which that section of the lens collects light.

23. The LED module of claim 14, wherein the lens includes an aspheric shape.

24. The LED module of claim 23, wherein the lens includes a faceted surface that approximates the aspheric shape.

25. The LED module of claim 24, wherein the faceted surface has a symmetrically circular shape.

26. The LED module of claim 24, wherein the faceted surface has a square tile pattern.

27. The LED module of claim 26, wherein the square tile pattern fully fills a surface of the lens.

28. The LED module of claim 26, wherein the square tile pattern is formed from micro-pyramids.

29. The LED module of claim 14, further comprising an array of LED's and an array of lenses, wherein each LED is associated with a respective lens.

30. A method of manufacturing a lens for a light source, the light source emitting divergent light, comprising;

providing at least one lens having a compound shape including curved surfaces that are distributed around the light source, wherein the curved surfaces may have an offset spherical or an offset aspherical shape.

31. The method of claim 30, wherein the lens comprises a lens array.

32. The method of claim 31, wherein the lens array is formed in a mold.

33. The method of claim 31, wherein each lens in the lens array includes faceted surfaces.

34. The method of claim 33, wherein the shape of the lens array is formed in the mold by a drill bit-type tool.

35. The method of claim 34, wherein each lens in the lens array is circularly symmetric.

36. The method of claim 33, wherein the shape of the lens array is formed in the mold by a surface lathe, router, or grinder.

37. The method of claim 36, wherein each lens in the lens array is formed of micro-pyramids in a square tile pattern.

38. The method of claim 32, wherein the lens array is formed of a potting gel.

39. The method of claim 31, wherein the lens array is formed of glass.

40. The method of claim 39, wherein each lens in the lens array is circularly symmetric.

41. The method of claim 39, wherein each lens in the lens array is formed of micro-pyramids in a square tile pattern.